Reply to Office Action of July 10, 2007

## IN THE CLAIMS

Please amend the claims as follows:

1. (Withdrawn) A prepreg, comprising:

reinforcing fiber,

a sheet-like reinforcing fiber substrate containing reinforcing fiber, and

a matrix resin,

wherein said matrix resin is impregnated into said sheet-like reinforcing fiber substrate and also covers one surface of said sheet-like reinforcing fiber substrate, and a matrix resin impregnation ratio is within a range of 35% to 95%.

2. (Previously Presented) A prepreg, comprising:

reinforcing fiber,

a reinforcing fiber substrate in the form of a sheet and containing reinforcing fiber,

and

a matrix resin,

wherein said matrix resin exists on both surfaces of said reinforcing fiber substrate,

wherein a portion inside said reinforcing fiber substrate into which said matrix resin

has not been impregnated is continuous, and

wherein said matrix resin comprises a microcapsule based latent curing agent.

3. (Withdrawn) A prepreg comprising a sheet-like reinforcing fiber substrate formed

from a reinforcing fiber woven fabric, and a matrix resin, wherein at least one surface

displays a sea-and-island-type pattern comprising resin-impregnated portions (island

portions) where said matrix resin is present at said surface, and fiber portions (sea portions)

where said matrix resin is not present at said surface, a surface coverage ratio of said matrix

2

Reply to Office Action of July 10, 2007

resin on surfaces with said sea-and-island-type pattern is within a range of 3% to 80%, and a weave intersection coverage ratio for said island portions, represented by a formula (1) shown below, is at least 40%:

Island portions weave intersection coverage ratio (%) =  $(T/Y) \times 100$  (1) (wherein, T represents a number of island portions that cover weave intersections, and Y represents a number of weave intersections within said reinforcing fiber woven fabric on said surface with said sea-and-island-type pattern).

- 4. (Original) A prepreg according to any one of claim 1 through claim 3, wherein said matrix resin is a thermosetting resin composition.
- 5. (Original) A prepreg according to claim 4, wherein said thermosetting resin composition is curable by holding at 90°C for 2 hours.
- 6. (Original) A prepreg according to claim 4, wherein a minimum viscosity of said thermosetting resin composition is no more than 1000 poise.
- 7. (Original) A prepreg according to claim 4, wherein said thermosetting resin composition comprises epoxy resin as a primary component.
- 8. (Previously Presented) A prepreg according to claim 4, wherein said thermosetting resin composition also comprises a thermoplastic resin, and said thermoplastic resin is not dissolved within said thermosetting resin composition.

Reply to Office Action of July 10, 2007

9. (Original) A prepreg according to claim 8, wherein said thermoplastic resin comprises short fibers of thermoplastic resin with a length of 1 to 50 mm.

10. (Original) A prepreg according to claim 9, wherein said short fibers of thermoplastic resin have a size of no more than 300 tex.

11. (Original) A prepreg according to any one of claim 1 through claim 3, wherein said reinforcing fibers are carbon fiber and/or glass fiber.

12. (Previously Presented) A prepreg according to any one of claim 1 through claim 3, wherein said reinforcing fiber substrate in the form of a sheet has a fiber weight within a range of 200 g/m<sup>2</sup> to 1500 g/m<sup>2</sup>.

13. (Previously Presented) A prepreg according to any one of claim 1 through claim 3, wherein said reinforcing fiber substrate in the form of a sheet is in a form selected from the group consisting of unidirectional materials, woven fabrics, knit fabrics, braided fabrics, mat materials, non-woven fabrics, and stitched sheets.

- 14. (Previously Presented) A prepreg according to any one of claim 1 through claim 3, wherein said reinforcing fiber substrate in the form of a sheet has a thickness of at least 200  $\mu m$ .
- 15. (Withdrawn- Previously Presented) A process for producing a prepreg, comprising:

applying a matrix resin on a resin support sheet,

bonding a matrix resin-coated surface of said resin support sheet to both surfaces of a reinforcing fiber substrate in the form of a sheet, and

pressing a laminate of said resin support sheets and said reinforcing fiber substrate under temperature conditions ranging from room temperature to 40°C in order to cause said matrix resin to impregnate said reinforcing fiber substrate,

thus forming a prepreg in which an interior of said reinforcing fiber substrate comprises a continuous portion that has not been impregnated with said matrix resin.

16. (Withdrawn) A process for producing a prepreg, comprising the steps of applying a matrix resin on a resin support sheet, bonding a matrix resin-coated surface of said resin support sheet to one surface of a reinforcing fiber woven fabric, bonding a protective film to another surface of said reinforcing fiber woven fabric, subsequently applying heat and/or pressure in order to cause said matrix resin to impregnate said reinforcing fiber woven fabric, thus forming a prepreg in which a surface of said reinforcing fiber woven fabric facing said protective film displays a sea-and-island-pattern comprising resin-impregnated portions (island portions) where said matrix resin is present at said surface and fiber portions (sea portions) where said matrix resin is not present at said surface.

- 17. (Withdrawn) A process for producing a prepreg according to claim 16, wherein a thermosetting resin composition containing a thermoplastic resin that is not dissolved within said thermosetting resin composition is also applied uniformly to said matrix resin-coated surface.
- 18. (Withdrawn) An intermediate material for FRP molding comprising a prepreg containing reinforcing fibers and a matrix resin, and a substrate containing essentially no

Reply to Office Action of July 10, 2007

impregnated thermosetting resin composition, which is provided on at least one side surface of said prepreg, wherein a ratio (B)/(A) between a thickness (A) of said prepreg and a thickness (B) of said substrate is within a range of 0.1 to 2.5.

- 19. (Withdrawn) A prepreg according to claim 18, wherein said matrix resin is a thermosetting resin composition.
- 20. (Withdrawn) An intermediate material for FRP molding according to claim 18, wherein said substrate containing essentially no impregnated thermosetting resin composition contains a fibrous thermoplastic resin.
- 21. (Withdrawn) An intermediate material for FRP molding according to claim 18, wherein said substrate containing essentially no impregnated thermosetting resin composition is a non-woven cloth of a thermoplastic resin.
- 22. (Withdrawn) An intermediate material for FRP molding according to claim 18, wherein said substrate containing essentially no impregnated thermosetting resin composition contains reinforcing fibers.
- 23. (Withdrawn) An intermediate material for FRP molding according to claim 22, wherein said reinforcing fibers are identical to said reinforcing fibers incorporated within said prepreg.

Application No. 10/521,433 Reply to Office Action of July 10, 2007

- 24. (Withdrawn) An intermediate material for FRP molding according to claim 22, wherein said reinforcing fibers are positioned at a different angle to said reinforcing fibers incorporated within said prepreg.
- 25. (Withdrawn) An intermediate material for FRP molding according to claim 22, wherein said reinforcing fibers are different from said reinforcing fibers incorporated within said prepreg.
- 26. (Withdrawn) An intermediate material for FRP molding according to claim 18, wherein said matrix resin is one of an epoxy resin composition and a phenol resin composition.
- 27. (Withdrawn) An intermediate material for FRP molding according to claim 18, wherein said reinforcing fibers incorporated within said prepreg are carbon fiber and/or glass fiber.
- 28. (Withdrawn) A process for producing an intermediate material for FRP molding, comprising the steps of preparing a prepreg using a lacquer-type process, and bonding a substrate containing essentially no impregnated thermosetting resin composition to at least one surface of said prepreg.
- 29. (Withdrawn- Previously Presented) A process for producing a fiber-reinforced composite material, comprising:

laminating a prepreg according to any one of claim 1 through claim 3, thereby obtaining a laminate, and

Reply to Office Action of July 10, 2007

conducting molding of said laminate using vacuum bag molding.

30. (Withdrawn) A process for producing a fiber-reinforced composite material, comprising the steps of laminating an intermediate material for FRP molding according to claim 18, and conducting molding using vacuum bag molding.

31. (Withdrawn- Previously Presented) A process for producing a fiber-reinforced composite material, comprising:

laminating prepregs according to any one of claim 1 through claim 3 with identical side surfaces of said prepregs facing to identical directions.

- 32. (Withdrawn) A process for producing a fiber-reinforced composite material, wherein an intermediate material for FRP molding according to claim 18 is laminated with identical side surfaces of said intermediate material facing to identical directions.
- 33. (Withdrawn) A process for producing a fiber-reinforced composite material according to claim 29, wherein in said vacuum bag molding process, primary curing is conducted for at least 10 minutes at a primary curing temperature of no more than 150°C, and molding is then conducted at a temperature that is equal to, or greater than, said primary curing temperature.
- 34. (Withdrawn) A process for producing a fiber-reinforced composite material according to claim 31, wherein in said vacuum bag molding process, primary curing is conducted for at least 10 minutes at a primary curing temperature of no more than 150°C, and

Application No. 10/521,433 Reply to Office Action of July 10, 2007

molding is then conducted at a temperature that is equal to, or greater than, said primary curing temperature.

35. (Withdrawn- Previously Presented) A process for producing a fiber-reinforced composite material according to claim 29, comprising

deaerating said prepreg under conditions including a temperature within a range of room temperature to 50°C, and a pressure of no more than 50 Torr, and

conducting molding by raising temperature to a molding temperature, while said pressure is maintained at no more than 50 Torr.

36. (Withdrawn) A process for producing a fiber-reinforced composite material according to claim 35, wherein a rate of temperature increase during said raising of temperature to said molding temperature is set to no more than 1°C/minute when it starts from a point at least 20°C below said molding temperature.